AMENDMENTS TO THE CLAIMS

21. (previously amended) A method of manufacturing a light-emitting device, said method comprising:

forming a light-emitting layer comprised of $In_XGa_{1-X}N$ on a sapphire substrate,

wherein the light-emitting layer has an indium mole fraction X and emits light of wavelength (nm) = 1239.8/Eg (eV), such that the emitted light has an energy level Eg < 3.4 * (1-X) + 1.95 * X - 1.0 * X * (1-X), said light-emitting layer being devoid of an intentional impurity.

22. (previously added) A method according to claim 21, wherein the emitted light has an energy level Eg approximately calculated in accordance with the following: Eg = 3.4 * (1-X) + 1.95 * X - 4.26 * X * (1-X).

23. (currently amended) A method according to claim 22, wherein the indium mole fraction X is set from about 0.13 to about 0.18 ~~and the light-emitting layer emits light having a peak wavelength ranging from 460 nm to 480 nm~~.

24. (currently amended) A method according to claim 22, wherein ~~the indium mole fraction X is set from about 0.13 to about 0.18 and~~ the light-emitting layer emits blue light.

25. (currently amended) A method according to claim 22, wherein the indium mole fraction X ranges from about 0.20 to about 0.23 ~~and the light-emitting layer emits light having a peak wavelength ranging from 510 nm to 530 nm~~.

26. (currently amended) A method according to claim 22, wherein the indium mole fraction X is set from about 0.19 to about 0.26 ~~and the light-emitting layer emits green light~~.

27. (currently amended) A method according to claim 21, said method further comprising:

disposing a buffer layer comprising A~~l~~lN on the sapphire substrate;

~~interposing a first clad layer comprising n-GaN between the buffer layer and the light-~~

~~emitting layer; and~~

~~forming a second clad layer comprising p-GaN doped with magnesium over the light-emitting layer~~.

28. (currently amended) A method according to claim 27, said method further comprising: disposing a transparent electrode ~~comprising gold~~ on the second clad layer ~~and disposing an electrode pad on the first clad layer~~.

29. (previously amended) A method according to claim 27, said method further comprising:

interposing a layer comprising AlXInYGa1-X-Y (including X=0, Y=0, X=Y=0) between the light emitting layer and the second clad layer,

wherein said interposed layer has a wide band gap and is doped with an acceptor.

30. (previously added) A method according to claim 29, wherein the acceptor is a group IIA element.

31. (currently amended)) A method according to claim 29, wherein the ~~acceptor is~~ acceptor comprises magnesium.

32. (previously amended) A method according to claim 27, said method further comprising:

growing the layers as crystals by a metal organic vapor phase epitaxial growth method with nitrogen, ammonia and alkyl compound gases containing a group III element.

33. (New) A method of manufacturing a light-emitting device, said method comprising:

forming a light-emitting layer comprised of $In_XGa_{1-X}N$ on a sapphire substrate,

wherein the light-emitting layer has an indium mole fraction X, such that the emitted light has an energy level $Eg < 3.4 * (1-X) + 1.95 * X - 1.0 * X * (1-X)$, said light-emitting layer being devoid of an intentional impurity.

34. (New) A method according to claim 23, wherein the light emitting layer emits light having a peak wavelength ranging from 460 nm to 480 nm.

35. (New) A method according to claim 25, wherein the light-emitting layer emits light having a peak wavelength ranging from 510 nm to 530 nm.

36. (New) A method according to claim 26, wherein the light-emitting layer emits green light.

37. (New) A method according to claim 21, said method further comprising interposing a first clad layer comprising n-GaN between the buffer layer and the light-emitting layer.

38. (New) A method according to claim 21, said method further comprising forming a second clad layer comprising p-GaN doped with magnesium over the light-emitting layer.

39. (New) A method according to claim 28, wherein said transparent electrode comprises gold.

40. (New) A method according to claim 27, further comprising forming a second clad layer comprising p-GaN doped with magnesium over the light-emitting layer.